

**INVESTIGATING THE PURCHASE INTENTION
OF HOUSE BUYERS' IN CHOOSING BETWEEN
SELL THEN BUILD (STB) OR BUILD THEN
SELL (BTS) HOUSE**

MOHD HANAFI BIN JUSOH

UNIVERSITI SAINS MALAYSIA

2015

**INVESTIGATING THE PURCHASE INTENTION OF HOUSE BUYERS'
IN CHOOSING BETWEEN SELL THEN BUILD (STB) OR BUILD THEN
SELL (BTS) HOUSE**

by

MOHD HANAFI BIN JUSOH

Thesis submitted in fulfilment of the
requirements for the degree
of Master of Science (Project Management)

DECEMBER 2015

ACKNOWLEDGEMENTS

And those who strive in our (cause), we will certainly guide them to our Paths: For verily Allah is with those who do right (Al-Ankabut: 69).

Life provides challenges and obstacles for everyone. One might think that a simple life is easy thus free from challenges, but one may not know that leading a life with no challenges is also a form of challenge. I had taken onto myself to complete a challenge that I had never knew I could undertake. This is a personal triumph, a manifestation of perseverance and motivation that had kept me going, even in times when I felt that I could not proceed any further.

All is done in the name of Allah. Therefore, my greatest appreciation goes to God the Al-Mighty, His Compassion and Mercy gave me strength and assistance that came in the most obvious and most mysterious ways.

I would like to extend my heartfelt appreciation to my supervisor, Associate Professor Dr. Mohd Wira Mohd Shafiei. As Lao Tzu once said, a journey of a thousand miles begins with one single step. My single step came in the form of this great man. He urged me to take the first step, and showed me the way of ten thousand miles.

Secondly, I would like to thank my friends Mr. Fazdliel Aswad, Mr. Mohd NurFadzli Bin Mad Nah, Nur Sakinah Binti Suardi, and Nur Zawani for helping me and gave me ideas when I was organizing my thesis and motivated me to complete my thesis. Also, a very special thanks are adu to my friend, who is a linguistics wizard, great last-minute help, my most trustworthy peer Mohd Firdaus Bin Azmi for his quick wit, amazing ideas and his brilliant linguistics assistance.

“Being deeply loved by someone gives you strength, while loving someone deeply gives you courage.” – [Lao Tzu](#)

My deepest gratitude goes to my beloved mother: Mdm. Hajah Zainab Binti Embong, my brother Ahmad Nor Al Faizan Bin Jusoh, Ahmad Syahmi Bin Jusoh, Mohd Soberi bin Muda as well as my sister Noreha @ Zaiton Binti Jusoh and, Nor Asmura Binti Jusoh and Hafizah Binti Jusoh. I also would like to thank my nephew who is cheered up my life when I was writing my thesis at home. To those who indirectly contributed to this research, your kindness means a lot to me. Thank you very much

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	ii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	x
LIST OF FIGURES.....	xiv
ABSTRAK.....	xv
ABSTRACT.....	xviii

CHAPTER 1: INTRODUCTION

1.1 Introduction.....	1
1.2 Problem Statement.....	4
1.3 Research Question	9
1.4 Objectives of Study.....	9
1.5 Key Terminologies of Study.....	10
1.6 Significance of Study.....	15
1.7 Scope of Study	17
1.8 Limitations of the Study	19
1.9 Organization of the Thesis.....	20

CHAPTER 2: HOUSING SITUATION IN MALAYSIA

2.1	Introduction.....	23
2.2	Housing Delivery System	23
2.2.1	Inputs.....	24
2.2.2	Throughputs	27
2.2.3	Outputs	32
2.3	Proces of Housing Development in Malaysia	33
2.4	Housing Marketing Overview	42
2.5	Problems in Housing Market	43
2.6	Housing Supply and Demand	44
2.7	Housing Policies in Malaysia	48
2.8	Concept Housing Delivery System in Malaysia.....	52
2.8.1	Sell Then Build System (STB).....	52
2.8.2	Build Then Sell System (BTS).....	53
2.8.2.1	Build Then Sell 100 % (100% BTS).....	54
2.8.2.2	Build Then Sell 10:90 (10:90 BTS)	56
2.9	The Concepts of Study.....	58
2.10	Summary of Housing Situation in Malaysia.....	62

CHAPTER 3: LITERATURE REVIEW

3.1	Introduction.....	64
3.2	House Buyers Intention	66
3.2.1	Purhase Intention.....	66

3.2.2	Purchase Intention Theory and Black Box Model	67
3.3	Purchase Decisions	69
3.3.1	Customer behaviour	69
3.3.1.1	Demographic Factors	71
3.3.1.1.1	House Buyers Demographic Characteristics.....	72
3.3.1.1.1.1	Age	72
3.3.1.1.1.2	Gender	73
3.3.1.1.1.3	Marital Status	74
3.3.1.1.1.4	Racial.....	75
3.3.1.1.1.5	Number of People	75
3.3.1.1.1.6	Level of Education	75
3.3.1.1.1.7	Household Income	76
3.3.1.1.1.8	House Price	77
3.3.1.2	Internal Factor (Psychological).....	77
3.3.1.2.1	Perception.....	77
3.3.1.2.2	Learning	78
3.3.1.2.3	Personal	78
3.3.1.3	Business Factor	78
3.3.1.3.1	Investments in Residential Property.....	79
3.3.1.4	External Factors (Social).....	80
3.3.1.4.1	Financial/ Loan Bank	80
3.3.1.4.2	Government Housing Loan Scheme	80

3.3.1.4.3	Replacement of Old Housing	81
3.3.1.4.4	House Buyers Problems	86
3.3.1.4.4.1	Delayed Project	86
3.3.1.4.4.2	“Sick” Project.....	88
3.3.1.4.4.3	Abandoned Project	90
3.3.1.5	Environment Factor (The Situation)	91
3.3.1.5.1	Type of Housing.....	91
3.3.1.5.2	Difficulties Faced by Buyers in House Buying in Malaysia.....	99
3.3.2	Consumer Purchase Decision Making Proses.....	100
3.3.2.1	Identifier Needs	101
3.3.2.2	Find Infromation	101
3.3.2.3	Alternative Rate	101
3.3.2.4	Main Purchases	102
3.3.2.5	Behavior After Puchase	102
3.4	Conceptual Framework.....	103
3.5	Summary of Literature Review	108

CHAPTER 4:RESEARCH METHODOLOGY

4.1	Introduction.....	110
4.2	Research Process	111
4.3	Research Methods.....	116
4.4	Survey Techniques.....	117

4.4.1	Population and Sample.....	117
4.4.2	Questionnaire Development.....	120
4.4.3	Questionnaire Framework.....	131
4.5	Pilot Testing.....	135
4.6	Data Collection	136
4.7	Method of Analysis.....	138
4.8	Summary of Research Methodology	142

CHAPTER 5: DATA ANALYSIS AND DISCUSSION

5.1	Introduction.....	143
5.2	Overview of Data Collected	144
5.3	General Information.....	145
5.3.1	Respondents Demographic Profile.....	145
5.3.2	Residential Information.....	150
5.4	Reliability Test.....	157
5.5	Achieving Objective 1: To Identify House Buyers Intention of STB, 100% BTS and 10:90 BTS Housing Delivery Methods.....	161
5.6	Achieving Objective 2: To Determine Factors Influencing House Buyers Intention of the STB, 100% BTS and 10:90 BTS Housing Delivery Methods.....	173
5.6.1	Factor One Financial Capability/Loan Financing Buyer	180
5.6.2	Factor Two Factor Ability Buyers	184
5.6.3	Factors Three Observation and Assessment	188
5.6.4	Factor Four Knowledge and Information.....	190

5.7	Conclusion for Factor Analysis in Objective Two	192
5.8	Summary of Data Analysis and Discussion.....	194

CHAPTER 6:DISCUSSION AND CONCLUSION

6.1	Introducion.....	196
6.2	Main Findings of the Study	197
6.3.1	Objective 1: To Identify House Buyers Intention of STB, 100% BTS and 10:90 BTS Housing Delivery Methods.....	198
6.3.2	Objective 2: To Determine Factors Influencing House Buyers Intention of the STB, 100% BTS and 10:90 BTS Housing Delivery Methods.	199
6.3	The Fundamental Contribution of the Study	201
6.4.1	Coontribution to Academia	201
6.4.2	Contribution to Agencies Involved in Malaysian Housing Industry	203
6.4	Limitations of the Study	204
6.4.1	Available Literature	204
6.4.2	Methodological Limitation Perspective.....	204
6.5	Recommendations for Future Studies.....	205
	REFERENCES.....	207
	APPENDIX A.....	216

LIST OF TABLES

	Page
Table 2.1 Population Growth, Density and Urbanization of Malaysia (1970-2020)	47
Table 2.2 Characteristics of 100% BTS	55
Table 2.3 Characteristics of the 10:90 BTS Model in Malaysia	57
Table 3.1 The Number of Production Licence by State Housing Development on First Quarter (January-March) and Second Quarter (April-June) on the Year 2011	83
Table 3.2 The Late Project Statistics by State as of 31 March 2011 (First Quarter) and 30 June 2011 (Second Quarter)	88
Table 3.3 The Sick Project Statistics by State as of 31 March 2011 (First Quarter) and 30 June 2011 (Secound Quarter)	89
Table 3.4 The Abandoned Project Statistics by the State Until 31 March 2011 (First Quarter) and 30 June 2011 (Secound Quarter)	90
Table 3.5 House Price Structure and Target Groups 1998 and 2011	93
Table 3.6 Performance Units Approved for Construction in First Quarter and Second Quarter 2011	96
Table 3.7 The Number of Housing Units by State in First Quarter and Second Quarter 2011	99
Table 3.8 Customer Behaviour	100
Table 3.9 Relating Statements Variable of BTS	106
Table 4.1 Population and Recommendation Sample Size of The Research	119
Table 4.2 Relating Statements for Residential Infromation	123
Table 4.3 Relating Statements House Buyers Purchasing House	124

Table 4.4	Relation Statements for Demographic Profile	130
Table 5.1	Distribution of Sample	144
Table 5.2	Respondent Profile	149
Table 5.3	Respondent's Residential Information	156
Table 5.4	Reliability Statistics	158
Table 5.5	Result of Alpha Cronbach's	159
Table 5.6	Frequency Result of the Perception House Buyers of STB, 100% BTS and 10:90 BTS	162
Table 5.7	Descriptive Statistics (Mean)	170
Table 5.8	All the Factors Influencing House Buyers Preferences of the STB, 100% BTS and 10:90 BTS Housing Delivery Methods in a Mean	173
Table 5.9	KMO And Bartlett's Test for Factor Influencing House Buyers Preferences of the STB, 100% BTS and 10:90 BTS	176
Table 5.10	Factor Analysis Influencing House Buyers Preferences of the STB, 100% BTS And 10:90 BTS	177
Table 5.11	KMO And Bartlett's Test for Factor One Influencing House Buyers Preferences of the STB, 100% BTS and 10:90 BTS (Factor Financial Capability/Loan Financing Buyer)	180
Table 5.12	Mean Analysis Factor One Influencing House Buyers Preferences of the STB, 100% BTS And 10:90 BTS (Factor Financial Capability/Loan Financing Buyer)	182
Table 5.13	Factor Analysis One Influencing House Buyers Preferences of the STB, 100% BTS And 10:90 BTS (Factor Financial Capability/Loan Financing Buyer)	183

Table 5.14	KMO and Bartlett's Test for Factor Two Influencing House Buyers Preferences of the STB, 100% BTS and 10:90 BTS (Factor Ability Buyers)	185
Table 5.15	Mean Analysis Fator Two Preferences House Buyers Preferences of the STB, 100% BTS and 10:90 BTS (Factor Ability Buyers)	186
Table 5.16	Factor Analysis Two_Influencing House Buyers Preferences of the STB, 100% BTS and 10:90 BTS (Factor Ability Buyers)	187
Table 5.17	KMO and Bartlett's Test for Factor Three Influencing House Buyers Precerences of the STB, 100% BTS and 10:90 BTS (Factor Observation And Assessment)	188
Table 5.18	Mean Factor Three Influencing Preferences House Buyers Preferences of the STB, 100% BTS and 10:90 BTS (Observation And Evaluation)	189
Table 5.19	Factor Analysis Three Influencing House Buyers Preferences of the STB, 100% BTS and 10:90 BTS (Observation And Evaluation)	190
Table 5.20	KMO and Bartlett's Test for Factor Four Influencing House Buyers Preferences of the STB, 100% BTS and 10:90 BTS (Knowledge And Information)	190
Table 5.21	Mean Factor Four Influencing House Buyers Preferences of the STB, 100% BTS and 10:90 BTS (Knowledge and Information)	191

Table 5.22	Factor Analysis Four Influencing House Buyers	192
	Prefrences of the STB, 100% BTS and 10:90 BTS	
	(Knowledge and Information)	

LIST OF FIGURES

	Page
Figure 2.1 Summary of the Housing Delivery System in Malaysia	26
Figure 2.2 Housing Development Process under STB	31
Figure 2.3 Flowchart of Property Development Approval	36
Figure 2.4 Applications for Conversion and Subdivision	37
Figure 2.5 Planning Permission Applications	38
Figure 2.6 Building Plan and Application	39
Figure 2.7 Road and Drainage Plan Earthwork Plan Application	40
Figure 2.8 Technical Departments	41
Figure 2.9 Graphical Representation of the 100% BTS Housing Model in Malaysia	56
Figure 2.10 Graphical Representation of the 10:90 BTS Housing Model in Malaysia	58
Figure 2.11 Basic Structural Model of Customer Preference Formation Consumer Behavior	62
Figure 3.1 Model Black Box Buyer Behaviour	68
Figure 3.2 Factors in Decision by Consumer	70
Figure 3.3 The Number of Production Licence by State Housing Development on First Quarter of 2011 (January-March)	84
Figure 3.4 The Number of Production Licence by State Housing Development on Second Quarter of 2011 (April-June)	84
Figure 3.3 Conceptual Framework	103
Figure 4.1 Research Process	115
Figure 4.2 Location of Data Collection	118
Figure 4.3 Questionnaire Framework	134

**MENGAJI KECENDERUNGAN PEMBELI OLEH PEMBELI RUMAH
DALAM MEMILIH ANTARA RUMAH JUAL KEMUDIAN BINA (JKB)
ATAU BINA KEMUDIAN JUAL (BKJ)**

ABSTRAK

Industri perumahan negara telah berkembang dengan pesat semenjak pelaksanaan Rancangan Malaysia Pertama yang bermula dari tahun 1966 sehingga 1970. Dalam konteks ekonomi pasaran bebas, kerajaan Malaysia telah membenarkan pemaju-pemaju perumahan merancang perniagaan mereka untuk memenuhi permintaan pembeli rumah. Dalam proses pihak pemaju perumahan memenuhi permintaan daripada pihak pembeli, terdapat beberapa isu yang dikemukakan oleh pihak pembeli. Antara isu yang dikemukakan ialah kualiti rumah, rumah terbengkalai dan rumah tidak mendapat kelulusan layak menduduki. Kesemua masalah ini burpunca daripada sistem perumahan yang sedia ada iaitu Jual Kemudian Bina (JKB). Oleh yang demikian, pemaju-pemaju perumahan disarankan supaya menjual rumah yang telah dibina dengan menggunakan sistem Bina Kemudian Jual (BKJ). Pada tahun 2007, Kerajaan telah mengumumkan penggunaan sistem tersebut dalam industri perumahan. Pelaksanaan sistem ini boleh digunapakai bersama sistem lama yang dikenali Jual Kemudian Bina (JKB). Oleh itu, kajian ini telah mengemukakan dua objektif untuk mengenal pasti tanggapan oleh pembeli-pembeli rumah terhadap sistem JKB, BKJ 100% dan BKJ 10:90 dalam kaedah-kaedah penyiapan rumah. Untuk mencapai objektif-objektif tersebut, kaedah kajian kuantitatif telah diguna pakai bagi mengumpul dan menganalisis data. Kaedah pengumpulan data tersebut dijalankan secara soal selidik di mana borang-borang soal selidik telah diedarkan kepada pengunjung pameran harta tanah yang berlangsung di Kuala Lumpur dan Johor Baharu. Sebanyak 685 borang soal selidik telah diedarkan, walau bagaimanapun sebanyak 635 borang telah diambil

untuk dianalisis. Untuk mencapai objektif satu, analisis kekerapan telah digunakan yang mana keputusan menunjukkan bahawa para pembeli rumah cenderung kepada memilih sistem BKJ 100% dan BKJ 10:90. Hasil analisis menunjukkan juga bahawa terdapat beberapa faktor yang mempengaruhi pandangan pembeli dan kecenderungan pembeli terhadap sistem JKB, BKJ 100% dan 10:90 BKJ. Objektif kedua ialah untuk menentukan faktor-faktor yang mempengaruhi niat pembeli-pembeli rumah terhadap sistem JKB, BKJ 100% dan BKJ 10: 90 sebagai kaedah-kaedah penjualan rumah. Keputusan analisis data yang diperolehi menunjukkan terdapat 4 faktor utama yang mempengaruhi niat pembeli diantara sistem JKB, BKJ 100% dan 10:90 BKJ. Faktor pertama ialah kemampuan kewangan, faktor kedua keupayaan, faktor ketiga ialah pemerhatian dan penilaian dan faktor terakhir adalah kefahaman dan informasi.

INVESTIGATING THE PURCHASE INTENTION OF HOUSE BUYERS' IN CHOOSING BETWEEN SELL THEN BUILD (STB) OR BUILD THEN SELL (BTS) HOUSE

ABSTRACT

Housing industry in Malaysia had progressed by leaps and bounds since the onset of the First Malaysia Plan (Rancangan Malaysia Pertama) starting from year 1966 to 1970. In the context of free market economy, the Malaysian government has allowed the housing developers to plan their own business in order to meet the demand from the buyers. Along the process, few issues have been acknowledged by the buyers. Among the issues that have been highlighted includes the quality of the house, the abandoned house and the issue of inability to obtain the certificate of fitness occupation (CFO). These issues source from the existing of housing system which is Sell Then Build (STB). Hence, the housing developers has been advised to sell the build house by using the Build Then Sell (BTS) system. In year 2007, the government has announced the new system in housing industry. The implementation of this system can be used with the old system; Sell Then Build (STB). Therefore, this study has came out with two objectives which is to identify the buyers perception towards STB, BTS 100% and BTS 10:90 in the house delivery system. The first objective to investigate house buyers' perception towards STB, BTS 100% and BTS 10:90 as house delivery systems. The second objective is to determine the factors that affected the buyers intention towards STB, BTS 100% and BTS 10:90 in the completion of the house. The data has been collected through a survey conducted at specific locations in property exhibitions in Kuala Lumpur and Johor Baharu. The total of 685 questionnaires were distributed, but only 635 questionnaires have been selected for analysis. To

achieve objective one, frequency analysis has been used and the result showed that house buyers had intention to choose BTS 100% and BTS 10:90 system. The findings indicate that there were several factors influenced the house buyers intention and preference with STB, BTS 100% and BTS 10:90. The second objective was to determine factors influencing house buyers' intention on the STB, BTS 100% and BTS 10:90 for housing delivery methods. The findings concluded that house buyers were more inclined towards the BTS 100% delivery system as well as the BTS 10:90 delivery system as compared to the STB system. Results of data analysis was indicated that there are four main factors influencing the perception of house buyers, intention and preferences with STB, 100% BTS and 10:90 BTS. The first factor is financial capability, second is ability, third is observation and evaluation and final is comprehension and information.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The role of housing industry towards the betterment of people's life cannot be understated. People of all levels of income – high, middle, and low income earners are the beneficiaries of the advancements made in the Malaysian housing industry. A house is, by definition is a place of habitation and dwelling for man. On a broader scale however, a house provides security from elements of nature, comfort for its dwellers, a place where mankind is nurtured and raised, a space where mankind develop physically and mentally, and also as a place where one maintains privacy.

It is a known fact that houses are important to man's social interactions within its community. A house although it already serves as the most basic functions of human necessities; serves other purposes as well. A well built house is an indication to the owner's status and place in the society. The bigger the house is, the higher one's status is. It is a symbol of wealth and power.

Over time, housing and house building has turned into an industry of its own. In the past, houses were built by its own dwellers, and later houses were made together with the help of members of the same community. The age of industry

and economic boom catalized many economic activities, that spawned a bigger population. This spurred a great need and demand for housing that at a point, the demand was much greater than the supply. With ever-rising demand, house-building has turned into an industry. Conglomerates, business people, companies and organizations begin to take interest in house trading – something that has never been done before. With that, companies that build and sell houses emerge and grow and house building has become more of an economic activity very much like the trading of agricultural products and electronics. New terminologies has been coined to refer to this industry. Property has been a fast growing industry that is very dynamic. This has also spawned downstream industries such as property insurance, interior design, and many more; making the housing industry a big and growing source of economic source of national income.

As one of the main contributors towards the national economic activities, the government places a great emphasis on the sustainability of the housing industry. It is not just viewed as the contributor to economic activities, but also as the provider of dwelling place to the society to generate a better and well-balanced life for people in the country. Due to these double-pronged roles, the development and sustainability of the industry is a matter of interest for all people in the country – either directly or indirectly.

Despite the rising prices, the higher demands of housing of the Malaysian house buyers over the decades reflect the importance of home ownership to the Malaysians. Except for the low-cost buyers where the government obliges some

form of discounts to be given by the housing developers, making the housing more affordable for the lower income group, the other house buyers need to finance the whole cost of developing houses from their own funds or bank loans. Traditionally, nearly all the houses provided to the Malaysian house buyers were delivered by the so called Sell-Then-Build (STB) system. The STB or ‘selling off-the-plan’ system conveniently transfers the bulk of the financial burden and risks of home building from developers to house buyers (Yusof, 2010).

Historically, the use of STB concept contributed greatly to the development of the country in terms of housing provision to the society. REHDA claims that the Sell Then Build (STB) system has been extremely successful, ultimately delivering over 70% of the total targeted housing units in the nation, as well as generate economic growth, creating employment and meeting social needs such as fulfilling low cost housing quotas and providing bumiputera housing discounts (Yusof, 2009).

But behind this backdrop of success and accomplishments, there lies persistent problems that had put the housing industry in a predicament. The number of abandoned project cases remarkably increased within 30 years ago, something that should not have happened in the modern time. The shoddy workmanship of some of the developed houses only adds to the bad image of the industry. Some parties had attributed these problems to the nature of the STB process that requires the house buyers to effectively finance and hence take the larger risks to complete the housing projects.

Prior to the 2007's implementation of the BTS, house buyers had no other housing delivery alternative to turn to except for the much maligned STB method. The STB method was perceived to be a cheaper option in home purchasing for the house buyers, and more preferred by the banks because of the easier management of risks which is basically skewed towards the house buyers. But realizing the unfairness of the system to the house buyers, the government agreed to provide an alternative housing delivery system that can better serve the rights of the buyers. Hence, in 2007, it was announced that a BTS system would be implemented within a specific time period for a trial run of two years. After two years, the new BTS system is practiced with STB system as alternative for the buyers to choose which house to buy. Now, house industries have two option systems in purchasing house. With this system, it was claimed that the house buyers can look forward to quicker delivery, better protection for their investments and improved housing quality (NST, 2006).

1.2 Problem Statement

Although our nation's housing industry has been somewhat a success, the industry is not always as triumphant all the way. There has been incidents that does not reflect the success that we always hear and know about. The first and foremost complaints that the public has made is the incompetent management of the developers. The cause of the incompetence has been based on the weakness of the housing delivery system itself. Therefore, with the resounding dissatisfaction coming from the public, people demanded that a new system should be designed to replace the currently used system. The current system is called Sell Then Build

(STB). The concept is that the developer can sell the house in advance using plan of the house that has yet to be built (Yusof, *et al.*, 2007). This system however, came with problems such project progress is slow, with developers often exceeding the estimated time of completion and some projects was not even completed. According to Rahman *et al.*, (2013) the construction industry has been criticized for its project delays, increasing costs, low productivity, unsafe site conditions, and poor quality.

Because that issues of that mismanagement, unfavorable government policies, inefficient public delivery system, unfavorable economic conditions, and financial problems are the major causes of the abandoned housing projects (Yap, 2013). In addition, according to Dahlan (2006) one of the most niggling enigmas is the growing issue of abandoned housing project and the government is very worrying because most of projects doing with developer using method STB system. However, on the previous study on build then sell system, most of the result shows that developers were reacted negatively to this plan. They believed that BTS and the 10:90 model were unnecessary for protecting home-buyers' rights against errant developers, claiming that the number of such developers is small. They claimed that responsible developers should not be punished with a BTS or 10:90 system because of others' faults (Yusof, 2009). But the most of problems abandoned project faced by the house buyers is result from developers. Therefore, it is necessary that the developer is monitored by a new system that better maintain the interest of house buyers there BTS system which was announced by the government.

Recognizing the demand of a new, better housing delivery system, the government of Malaysia constructed a new system that is aimed at tackling these problems, and also to ensure a smoother, faster and safer process to take place. Hence, the country saw the birth of a system called Build Then Sell (BTS). The Build Then Sell (BTS) concept had been extensively discussed and debated by various parties in the Malaysian property development and industry. The idea was originally mooted in the 1980s to replace the Sell Then Build (STB) approach, however since then various attempts to implement the system had met with dead ends.

There are two well-known variants of BTS the '10:90' and the pure BTS (referred to as 100% BTS hereinafter). According to HBA (2005), 10:90 is a midway between the present progressive payment (STB) and the completed BTS. The 10:90 model is a scenario whereby 'the purchasers must pay a deposit of 10% when signing the Sale and Purchase Agreement (S&P) with the remaining 90 per cent of the purchase price payable upon completion of their houses together with the issuance of Certificates of Fitness for Occupation. Lee and Tan (2006) added that, 10:90 concepts allow house buyers to pay 10% of the sales price up front to the developer and the remaining balance of 90% would be held back by a lawyer until the handover of the property is done. This indicates that the financial and equity sharing formula for the 10:90 model is very similar to BTS where the housing finance are separated from the house buyers.

Studies have been made before by many researchers on the financial flow charts of STB and BTS process delivery system, advantages of the STB and BTS, and Quality of house made using the BTS system. More studies focused on the implementation of BTS and the difference with BTS and STB on performance. However, there were no studies on customer behavior in the aspect of delivery system when purchasing a house. The decision on which system to use lie on the hands of customers whether to choose system STB or BTS and which works best for them. Consumers often choose to act or in the case of house purchasing; opt for a better system that ensures safety and the product they purchased are handed to them with satisfaction. Some may wish to choose a system, but they end up choosing another that is more suited to their own ability or capacity. This behaviour was observed and noted by Ajzen (2004) who mentioned; even when measures of intention and behavior have sufficient variance, are relatively stable, and meet the criterion of compatibility, we find that some people do not act on their stated intentions. The gap between intentions and behavior in this case is an instance of literal inconsistency: People say they will do one thing yet do something else.

Since there are customers or house buyers who are still ill-informed about the new BTS system, customers are not exposed entirely to the existing house delivery systems that is offered in our country. Most only know that the difference between STB and BTS are the payment format of both systems, without recognizing that both systems have direct impact on the progress of the house building itself. One potential danger of the 10:90 BTS model as currently

proposed is that buyers can renege on their agreements during market downturns, thereby causing projects to fail midstream (Chen, 2006).

According to Esha & Sarip (2004), end financing is important to finance developers' construction project where end financing is provided or payment made by house buyers either through themselves or their bankers to the developer. Financing needs in the process of purchasing more house buyers need to know before you decide to buy a house.

This study will be looking into the characteristics that compels customers to choose which house delivery system in purchasing any residential property. It should be noted that in understanding the factors that lead to the preference of either system, internal aspects such as customer behaviour should also be taken into consideration, in order to produce a more comprehensive study. Customer profiling is also another crucial aspect. This should answer questions like: "who buys?", "what to buy?", "and why consumers buy?" Answering those questions will shed light upon the characteristics of buyers that influences the choice that consumers make between the two systems. The statements questions will be used for example, I like, I agree, I know, I thing, I will and I need lead to the objective and this study will not produce a model, it will only list the factors leading to the choices made in the selection of the STB or BTS system. The question the BTS system raises is that whether or not this new system will provide the opportunity for consumers to purchase ready-made residential properties with affordable price as opposed to the SBT system whereby houses are built according to what

consumers want to buy. This study will look into house buyers' intention to and key factors in the selection process of any delivery systems.

1.3 Research Question

The purpose of this study is to investigate Malaysian house buyers intentions towards two housing delivery systems practised in the country using partly the theory of planned behaviour (Ajzen, 1991). This particular theory shows significant results in predicting purchase intentions. The research questions of this research are:

- 1) Which one of these housing delivery methods are preferred by house buyers?
- 2) What are the factors involved in influences house buyers' intention of the STB, 100% BTS and 10:90 BTS.

1.4 Objectives of Study

The research objectives are:

- 1) To identify house buyers intention of STB, 100% BTS and 10:90 BTS housing delivery methods.
- 2) To determine factors influencing house buyers intention of the STB, 100% BTS and 10:90 BTS housing delivery methods.

1.5 Key Terminologies of Study

In this study, these terminologies are explained to ensure some of the key terms are fully understood by the house buyers and researchers. First, the meaning of Purchasing, second is Intention, third is Perception, fourth is House Buyers, fifth is Housing Development, sixth is Housing Delivery System and last but not least is a Sell-Then-Build (STB) and Build-Then-Sell (BTS). All these key term will be discussed for view and understand house buyers and researchers. All the key term were discussed according to Malaysian housing industry.

Verily, knowledge is the most powerful tool anyone could use in purchasing anything. In property purchasing, knowledge of not only about properties, but also socio-demography of a property's location, economic activity, sociology and other aspects of living can help in a great way to make a purchase most worthy. This is supported by Knight *et al.*, (2014) how knowledge and skills vary across a purchase in the business and extensively. The importance of different knowledge that house buyers have to know can help buyers make correct decisions. The type of house purchasing systems in Malaysia is a knowledge that was as if almost hidden from the sight of property buyers until the reveal by the Government of Malaysia of the new housing delivery system a few years back. This study does not look at residential property purchasing depending on house buyers and developers perspective, but rather the intention of the purchaser of a residential property i.e a house. The developers provide facilities or services to buyers in return for profit, while buyers want a living space that is safe to live in. More details is in the next chapter.

This study intends to shed some light upon house buyers who intends to buy a house by either using the old STB system or the newer BTS system. According to, Bagozzi (2014), behavior is determined directly by one's intention to perform the behavior; intention, in turn, is influenced by outright *e* (i.e., one's positive or negative evaluation of performing the behavior) and by subjective norm (i.e., the perceived social pressure to perform or not to perform the behavior). Intentions to perform behaviors of different kinds can be predicted with high accuracy from attitudes toward the behavior, subjective norms, and perceived behavioral control. These intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior (Ajzen, 1991). More in detail discussed is in the next chapter. After house buyers decide to purchase a house, the house buyers would then have a perception of the home what to buy.

Perception, is sometimes unnecessarily based on incomplete and unverified (or unreliable) information, perception is equated with reality for most practical purposes and guides human behavior in general. This study focuses on, the perception of house buyers in choosing STB or BTS system in purchasing a house. Furthermore, to assess perceptions of housing in this study, instruments used are usability, meaning of home, and housing satisfaction (Nygren *et al.*, 2007).

According to act 18, Malaysian housing development (Control and Licensing) Act 1966 (Revised-1973) contains the latest amendments, PU (A) 441/2010. Part

VI Homebuyers Claims Tribunal a home buyer is a person who has subsequently purchased a housing accommodation from the first purchaser of the housing accommodation (www.kpkt.gov.my). Furthermore, for many house buyers, purchasing a house means making a long-term commitment to repay the loan incurred, sometimes until they retire or even beyond retirement. (Radzuan *et al.*, 2011). The environmental qualities are what house buyers would consider before buying a house, and such elements are reflected in the property prices. Good environmental elements carry significance in property values. (Tan, 2010). More detail discussed in the next chapter.

Housing as according to geographer John S. Adams (1984), “is the stock of houses, apartments, and other shelters that provide the usual residences of persons, families, and households”. Also, according Ismail (2012) adds; houses become home in the last process of housing development. This study, will not discuss on a detail this topic. But for the knowledge an information to house buyers, because this study more a house buyer's intention of purchasing a home which STB or BTS system. Housing development indirectly linked in this study. The next chapter discussed a detail of chat housing development process with STB and BTS.

A good housing delivery system encourages excellence in each and every housing delivery sector as a way to increase the efficiency and effectiveness of the entire system (Gunarajah, 1997). Yusof (2010) mentioned; generally, a housing delivery system has three (3) main elements: *inputs*, *throughputs* (processes) and *outputs*

(Wayne State University, 2000). ‘Inputs’ are resources, including institutional components, which feed into the system. ‘Throughputs’ are processes that transform the inputs into outputs. ; Outputs’ are the products, services, or other items produced by the system (in this case, houses). More discussions on housing delivery system in Malaysia will be in next chapter. In Malaysia, there are two housing delivery systems implemented in residential property sales and purchase: Sell-The-Build (STB) and Build-Then-Sell (BTS) (Fauzi, 2011). These two systems’ mechanisms will not be looked on deeply in this study, however, this study focuses on public perception towards these two systems, and public intention towards either of the systems when purchasing a residential property.

The old and common, more traditional practice used in the housing industry is called Sell Then Build (STB). This system has been applied in the country since the 1960s when it was conceptualized with the New Economic Policy launched by the then Prime Minister of Malaysia Dato’ Abdul Razak bin Dato’ Hussein. The STB allows developers to sell housing units to house buyers and collect progress payment while they build the house (Yusof, *et al.*, 2010). According Leung, *et al.*, (2007) the STB system is where incomplete houses are sold by developers at the planning or construction stage. Houses are sold by using house plans and illustrations of the plans that are made by the developers in order to visually represent a non-existent product. The details about STB system will be discussed in the next chapter.

These days, Malaysia also practices a new system of house purchasing called Build Then Sell (BTS) system. The BTS system which was implemented since April 2007 together with the old system STB for a trial period of two years. According to Goh (1997), BTS system houses are generally put on the market only after the construction is complete. Furthermore, developers may sell the house only after it is completely built in the property market together with CCC (Certificate of Completion and Compliance) readily issued (Yusof, *et al.*, 2010a; b; Leung, *et al.*, 2007c). In the system, BTS is when the developer sells houses that is finished and completed. The BTS also have two purchasing systems, the first is 100% BTS and the second 10:90 BTS. The 10:90 BTS system dictates that house buyers have to pay 10 percent of price house up front. After the house is completed, house buyers are obliged to pay the remaining 90% of the purchased house price.

In terms of house buying, purchasing intention can be defined as a plan to purchase a particular residential property in the future. Generally, without specifying to any field of marketing studies, Business Dictionary.com (2010) defines purchase intention as a plan to acquire a particular good or services in the future. For the purpose of this study, purchasing intention can be measured on two six-point numeric scales. The scale items were taken from previous studies published in the information technology and marketing literature. These measurements ranged from 1, representing extremely unlikely, to 6, extremely likely. In this study however, although relevant, this scale will not be used as the research focuses on purchasers inclination between two house delivery methods and not product or service comparisons.

However, house buyers can be defined as a person or a group of persons who plans to purchase a house or any units of residential property. In this study, house buyers are categorized according to several traits and characteristics. Respondents of this study are potential house buyers that have been divided into categories such as age (Cambridge, 1995), household income level (Mohd. Amin, *et al.*, 2006), level of education (Diamantopoulos, *et al.*, 2003), gender (Straughan and Roberts, 1999), marital status (Diamantopoulos, *et al.*, 2003), and racial background (Newell and Green, 1997).

House buyers behaviour definition consumer behaviour is the study of individuals groups organization and the processes they use to select, secure, use and dispose of products, services, experiences or ideas to satisfy needs and the impacts that these processes have on the consumer and society. Thus, it can be concluded that in the study of housing and house delivery system, house buyers' behaviour can be defined as thus: the processes that house buyers use to select, secure, and use products (houses) (Shaw, (2012); Thomas, (2010); Hallowell (1996). Services (house-buying related services) experiences or ideal to satisfy housing needs and also how these processes effect the society (and for the purpose of this study) the developers, law-makers and the general public.

1.6 Significance of Study

The proposed study can contribute to both in the academic world and in practice. The study intends to shed new light into customer preference theory in relation to

housing delivery methods in Malaysia. To date, there are no such studies had been carried out on Malaysian house buyers. This is the first attempt to establish such an understanding in the Malaysian context.

The significance of this research to the practice is a follow-through to the contribution made in the academia. The data generated can be used by various stakeholders in the property development industry to predict the purchasing behavior of Malaysian house buyers with regards to the BTS and STB housing delivery methods. If sensibly used and planned, the data can supply important information regarding the needs and buying patterns of the house buyers. This, in turn, can be fed back to the supply side of the market, so that the property developers can better interpret and understand how to best approach the buyers either when using BTS or STB.

The targeted audience of this study is as follows:

- Ministry of Local Government and Housing.
- House buyers.
- House buyer organizations
- Real Estate and Housing Developers' Association (REHDA)
- National House Buyers Association (HBA)
- Local property development companies.

1.7 Scope of Study

The scopes of this study are house buyers' intention in terms of housing delivery system and house purchasing. This study is to compare house buyers' intention towards house delivery systems between the old Sell-Then-Build system and the new Build-Then-Sell system in the housing industry in Malaysia. The rationale of studying house buyer's intention towards STB system or BTS is because of the house buyers power of purchasing in the market. House buyers as respondents come from various backgrounds and can be either male or female, with the prerequisite that he or she has a plan or intention of buying a house. The respondents must be adults therefore; it was decided respondents have to be 18 years of age and above. All of the respondents in this study come from a property exhibition.

Respondents in this study were chosen among potential house buyers from a property exhibition. This pool sample is believed to be the best candidates at the time of the study that would be able to yield more accurate survey results to achieve the study objective. This study is to explore house buyers choice between the STB system or the BTS system, which is most suitable suitable with the potential house buyers according to their own opinion. They are also chosen from a property exhibition where they are in the actual situation of normal house-buying process. This study was conducted in two (2) places. The first venue was an exhibition was organized by Real Estate and Housing Developers' Malaysia (REHDA) in Kuala Lumpur and the second was held in Johor Baharu.

The property exhibition where our survey took place was organized by REHDA. REHDA is one of the organizations that actively carry out exhibition related to property sales and purchase in Malaysia. The exhibition in question was the Malaysia Property Expo (MAPEX) which was an annual event organized in strategic locations across Malaysia. It must be noted that during the survey taking exercise, REHDA gave good cooperation to our team members.

As mentioned earlier, this study needed respondents that were seriously considering of buying a house. So, the choosing a property exhibition was believed to be able to yield a more accurate data, because, almost 70% of the visitor that attended the property exhibition stated that they wanted to find the opportunity to own a residence or to make an investment in the real estate field. Respondents that volunteered came from various backgrounds, education level and various levels of knowledge in housing and property field. Apart from that, researchers could also find information directly from developers which were involved in the exhibition. However, in this study researchers does not take into account the view and opinion from the developers. The opinions or proposals from developer were not included in the analysis because this study focuses on the objective to look into the intentions of house buyers.

Finally, this study selected a few characteristics which determine the system chosen by the house buyer before buying a whether STB or BTS system. Apart from that suggestion and respondent's opinion in this study considered in analytical data as supportive and proposal to parties involved.

1.8 Limitations of the Study

This study will have some limitations and problems in completing the research, including:

The lack of primary data; although the topic is large, not much is knowledge about BTS and STB house purchasing system has been researched and recorded academically. Most researchers compare STB and BTS and more researched on the application STB and BTS from a governance and economic point of view. This is because, researchers try to provide only good information BTS system and how it is the more suitable system to be practiced in housing delivery in Malaysia. This is to attract developers to build and sell more houses using this system.

The second limitations is the difficulty to obtain the information from developers regarding past purchases made using either systems. This is because there is no accurate data issued by any responsible parties, due to the lack of investigations regarding this particular topic. In addition, many housing developers that had used the BTS system did not register with the authorities.

The research team received the cooperation from two exhibitions. The research was conducted first at Mid Valley Megamall Kuala Lumpur property exhibition and the second was in Johor Bharu. Although there were other property exhibitions held in other places, these two venues were most cost-effective and

utilised the most optimum resources. Furthermore, the two exhibitions were organized by REHDA who provided researchers great cooperation in the property exhibition. Respons from other property exhibition organizers were not as enthusiastic.

The final limitation is the lack of knowledge by respondents about the BTS system. Some respondents knew about the STB system whilst some others knew only about the BTS system and some knew about both. For respondents who know about both systems, they were able to provide good answers. The respondents who know the STB system also gave good answers because the researchers were able to inform the participants about BTS systems in order to obtain more accurate answers of the questionnaires. Some of the respondents went through negative experiences in the past when dealing with house purchase. This affected their answers for both of the systems under study. These answers however, after careful consideration were repudiated from this research.

1.9 Organization of the Thesis

In this part, a brief description of all chapter were written. All of the six (6) chapters in this report are organized as the following:

Chapter 1 is the introductory section in which the reason and direction of this investigation are explained. This chapter includes the background of the study,

including a problem statement, objectives of study, key term of study, significance of study, scope of study, and limitations of the study.

Chapter 2 presents an overview of the housing situation in Malaysia. This chapter also contains the current literature on housing delivery system and housing development in Malaysia. Other contents of this chapter include an overview of house marketing, problems in housing market, housing demand and supply and housing policies in Malaysia. Then, this chapter also discusses the concept house delivery system Malaysia including STB system and BTS system. Lastly, the concepts of studies.

Chapter 3 expresses an over view of the literature review. This chapter also discusses the housing need including demographic factors, purchasing a home for investment, housing loan scheme and replacement of old houses. This chapter also contains discussions about categories of housing, house buyers problems and last conceptual framework.

Chapter 4 presents the research methodology used in this studies. This chapter discussed the research process, research method for this studies, survey technique including population and sample, questionnaire development, questionnaire framework. After survey technique, next is do the pilot testing and mothod analysis for the next chapter.

Chapter 5 details and elaborates the findings and discussion about the results obtained from this study. The data collected in the survey was analyzed by using the descriptive analysis available in the Statistical Packages for Social Science (SPSS) software. The analyses performed are showed in this chapter.

Chapter 6 summarizes all the chapters and concludes the findings of this study. Recommendations for the future study are also provided.

CHAPTER 2

HOUSING SITUATION IN MALAYSIA

2.1 Introduction

This chapter discusses about the housing development situation in Peninsular Malaysia and the interest from socioeconomic perspective. Discussions start with housing delivery system, next sub chapter discusses about the process of housing development in Malaysia. The next sub chapter discusses about housing market problems, then the housing supply and demand in Malaysia followed by housing policy in Malaysia. The concepts related to this study is explained such as STB, 100% BTS and 10:90 BTS. To get a clearer view of the situation on this study, this chapter also describes in general about customer behaviour/preference, intention, and housing perception in Malaysia. The end of this chapter explains the house buyers characteristics in housing industry.

2.2 Housing Delivery System

A reliable and fair housing delivery system can only be good for all the stakeholders in the housing industry. If BTS method is believed to have helped spurred the nation's housing industry since 1957, the time has come to implement another system into the equilibrium to improve housing delivery to the house buyers. For example, Yusof (2010) argued that the new BTS system could help create a better image for the industry, as only qualified developers would be allowed to participate in it. Furthermore, this can inspire more confidence in the

public towards the trustworthiness of the property developers whose image had been badly affected by the actions of some short-term, unscrupulous developers, hell-bent on gaining profits at all costs.

Generally, knowledge of the housing delivery system has three main elements: inputs, throughputs (processes) and outputs (Wayne State University, 2000). ‘Inputs’ are resources (including institutional components) which feed into the system. ‘Throughputs’ are processes that transform inputs into outputs. ‘Outputs’ are the products, services, or other items produced by the system (in this case, houses). Figure 2.1 illustrates the housing delivery system in Malaysia.

2.2.1 Inputs

In Malaysia, there is a huge amount of player influence house building (Goh, 1997). These players under the ‘input’ category are involved in planning, finance, construction, maintenance, sales and physical structure increase, and in providing service to public. They include governments, developer, financiers and professionals.

The Government plays the role of controlling housing market through policy and regulation implemented at federal level, state and local authorities. Policies and this rule coordinate process which housing developers compete for limited source of land, labor, material and investment. Developers include private developers,